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10/606,108	06/25/2003	Kazushi Ogawa	075834.00420	4208

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EXAMINER
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RENNER, CRAIG A

ART UNIT	PAPER NUMBER
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2627

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12/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/606,108

Applicant(s)

OGAWA ET AL.

Examiner

Craig A. Renner

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 23-27, 29, 30 and 32-38 is/are rejected.
- 7) ☒ Claim(s) 28 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 25 September 2007 has been entered.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

In lines 5 and 24 of claim 27, each instance of "the magnetic tape" should be changed to --the magnetic tape recording medium-- in order to more clearly refer back to that set forth in line 2 of claim 27. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 23, 26, 30, 32, 34, and 36-38** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In line 5 of claim 23, it is indefinite as to whether "the non-magnetic film" refers to that set forth in line 2 of claim 23, or that set forth in line 4 of claim 23.

b. In line 5 of claim 26, it is indefinite as to whether "the non-magnetic film" refers to that set forth in line 2 of claim 26, or that set forth in line 4 of claim 26.

c. In line 5 of claim 30, it is indefinite as to whether "the non-magnetic film" refers to that set forth in line 2 of claim 30, or that set forth in lines 3-4 of claim 30.

d. In line 5 of claim 32, it is indefinite as to whether "the non-magnetic film" refers to that set forth in line 2 of claim 32, or that set forth in lines 3-4 of claim 32.

e. In lines 3 and 6 of claim 34, each instance of "the recording medium" is indefinite because it lacks clear and/or positive antecedent basis.

f. In lines 5-6 of claim 36, it is indefinite as to whether "the non-magnetic film" refers to that set forth in line 2 of claim 36, or that set forth in line 4 of claim 36.

g. In lines 5-6 of claim 38, it is indefinite as to whether "the non-magnetic film" refers to that set forth in line 2 of claim 38, or that set forth in line 4 of claim 38.

h. Claim 37 inherits the indefiniteness associated with base claim 34 and stands rejected as well.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 24-27, 29, 30, 33, 35, and 36** are rejected under 35 U.S.C. 102(b) as being anticipated by Kikuri (US 2001/0028539).

Kikuri (US 2001/0028539) teaches a magnetic head assembly comprising a magnetic recording head (10), having a leading side (adjacent 20, for instance) and a trailing side (adjacent 16, for instance) relative to a traveling direction (T, as shown in FIG. 5, for instance) of a magnetic recording medium (T<sub>P</sub>) and fabricated in a thin film forming process, at least one auxiliary member (3) adhered to either the leading side or the trailing side of the magnetic recording head, the magnetic recording head mounted in a helical scan drive (D) and including a substrate (2), a first magnetic core (16) formed above the substrate and having a substantially rectangular-shaped front end face (as shown in FIG. 3, for instance), a second magnetic core (20) formed above the substrate and having a front portion (20a), a substantially rectangular-shaped front end face (as shown in FIG. 3, for instance), and a back portion (20b), the back portion being connected to the first magnetic core (as shown in FIG. 4, for instance), a magnetic gap (between 16 and 20a) of predetermined thickness provided between the front end face of the first magnetic core and the front end face of the second magnetic core (as shown in

FIG. 3, for instance), a planar spiral coil (18) having a portion thereof disposed between the first magnetic core and the second magnetic core for developing a magnetic flux between the first and second magnetic cores (as shown in FIG. 4, for instance), wherein a width of the second magnetic core front end face is smaller than a width of the first magnetic core front end face (as shown in FIG. 3, for instance) [as per claim 24]; wherein the planar spiral coil and each of the first and second magnetic cores are separated by a non-magnetic film (includes 17, for instance) in the area between the first and second magnetic cores [as per claim 25]; wherein a non-magnetic film (includes left-most 17 as shown in FIG. 4, for instance) is provided between the substrate and the planar spiral coil outside of the area between the first and second magnetic cores, and a non-magnetic film (includes right-most 17 as shown in FIG. 4, for instance) is provided between the first magnetic core and the planar spiral coil in the area between the first and second magnetic cores, the non-magnetic film providing a level surface for the formation of the planar spiral coil in a same plane inside and outside of the region defined by the overlap of the first and second magnetic cores (as shown in FIG. 4, for instance) [as per claim 26]; wherein the magnetic head assembly is a component of a magnetic recording system (includes D as shown in FIG. 9, for instance), wherein the magnetic recording medium is a magnetic tape recording medium (as shown in FIG. 10, for instance), and wherein the smaller second magnetic core front end face is formed on the leading side of the magnetic recording head such that the second magnetic core front end face passes across the magnetic tape recording medium before the first magnetic core front end face (as shown in FIG. 3

relative to FIG. 5, for instance, i.e., since the tape moves in direction T as shown in FIG. 5, the tape will pass across element 14 before element 12, therefore the smaller second magnetic core front end face is formed on the leading side of the magnetic recording head such that the second magnetic core front end face passes across the magnetic tape recording medium before the first magnetic core front end face) [as per claims 27, 29 and 30]; and wherein the magnetic recording head is used in a method including causing the magnetic recording head to come into contact with the magnetic tape recording medium in such a manner that the second magnetic core front end face passes across the magnetic tape recording medium before the first magnetic core front end face (as shown in FIG. 3 relative to FIG. 5, for instance, i.e., since the tape moves in direction T as shown in FIG. 5, the tape will pass across element 14 before element 12, therefore the second magnetic core front end face passes across the magnetic tape recording medium before the first magnetic core front end face) [as per claims 33, 35 and 36].

#### ***Pertinent Prior Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes Kikuri (US 6,473,273), Miyatake et al. (US 6,504,687), Kikuri (US 6,683,760), Kikuri (US 6,697,231), Takeya (US 2002/0024764), and Saito (JP 2001-034906), which each individually teaches a magnetic head assembly comprising a magnetic recording head, having a leading side and a trailing side relative to the traveling direction of a magnetic recording medium and fabricated in

a thin film forming process, at least one auxiliary member adhered to either the leading side or the trailing side of the magnetic recording head, the magnetic recording head mounted in a helical scan drive and including a substrate, a first magnetic core formed above the substrate and having a substantially rectangular-shaped front end face, a second magnetic core formed above the substrate and having a front portion, a substantially rectangular-shaped front end face, and a back portion, the back portion being connected to the first magnetic core, a magnetic gap of predetermined thickness provided between the front end face of the first magnetic core and the front end face of the second magnetic core, a planar spiral coil having a portion thereof disposed between the first magnetic core and the second magnetic core for developing a magnetic flux between the first and second magnetic cores, wherein a width of the second magnetic core front end face is smaller than a width of the first magnetic core front end face.

***Allowable Subject Matter***

8. **Claims 21 and 22** are allowable over the prior art of record. **Claim 23** would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. **Claims 28 and 31** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. **Claims 32, 34, 37 and 38** would be allowable if rewritten to overcome the



rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

9. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A. Renner whose telephone number is (571) 272-7580. The examiner can normally be reached on Tuesday-Friday 9:00 AM - 7:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Craig A. Renner  
Primary Examiner  
Art Unit 2627

CAR